

Refine Search

Search Results -

| Terms | Documents |
|--------------------|-----------|
| L3 and acid number | 18 |

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

L5

Search History

DATE: Thursday, May 10, 2007 [Purge Queries](#) [Printable Copy](#) [Create Case](#)

| <u>Set</u> <u>Name</u> side by side | <u>Query</u> | <u>Hit</u> <u>Count</u> | <u>Set</u> <u>Name</u> result set |
|--|---|----------------------------|---|
| | <i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i> | | |
| <u>L5</u> | L3 and acid number | 18 | <u>L5</u> |
| <u>L4</u> | L3 and (560/\$ or 562/\$) | 2 | <u>L4</u> |
| <u>L3</u> | 12 and sulfur\$6 and phosphor\$9 and peroxide and carbonyl and ash\$6 | 37 | <u>L3</u> |
| <u>L2</u> | 11 and (diester or dicarboxylic acid or dicarboxylate) | 10503 | <u>L2</u> |
| <u>L1</u> | (cyclohexane dicarboxyl\$8 or cyclohexene dicarboxyl\$8) or (cyclohexanedicarboxyl\$9 or cyclohexenedicarboxyl\$9) | 12316 | <u>L1</u> |

END OF SEARCH HISTORY

Hit List

First Hit

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Search Results - Record(s) 1 through 10 of 18 returned.

☐ 1. Document ID: US 20050069683 A1

L5: Entry 1 of 18

File: PGPB

Mar 31, 2005

PGPUB-DOCUMENT-NUMBER: 20050069683

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050069683 A1

TITLE: Antistatic conductive grid pattern with integral logo

PUBLICATION-DATE: March 31, 2005

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|----------------------|-----------|-------|---------|
| Aylward, Peter T. | Hilton | NY | US |
| Majumdar, Debasis | Rochester | NY | US |
| Fitzgerald, Barry A. | Holley | NY | US |
| Robinson, Kelly S. | Fairport | NY | US |

US-CL-CURRENT: 428/195.1

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 2. Document ID: US 20050064154 A1

L5: Entry 2 of 18

File: PGPB

Mar 24, 2005

PGPUB-DOCUMENT-NUMBER: 20050064154

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050064154 A1

TITLE: Transparent invisible conductive grid

PUBLICATION-DATE: March 24, 2005

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|-------------------|-----------|-------|---------|
| Aylward, Peter T. | Hilton | NY | US |
| Majumdar, Debasis | Rochester | NY | US |

US-CL-CURRENT: 428/195.1

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 3. Document ID: US 20050064152 A1

L5: Entry 3 of 18

File: PGPB

Mar 24, 2005

PGPUB-DOCUMENT-NUMBER: 20050064152

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050064152 A1

TITLE: Transparent invisible conductive grid

PUBLICATION-DATE: March 24, 2005

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|----------------------|-----------|-------|---------|
| Aylward, Peter T. | Hilton | NY | US |
| Majumdar, Debasis | Rochester | NY | US |
| Daly, Robert C. | Rochester | NY | US |
| Robinson, Kelly S. | Fairport | NY | US |
| Fitzgerald, Barry A. | Holley | NY | US |
| Christian, Paul A. | Norton | MA | US |

US-CL-CURRENT: 428/195.1; 428/500, 430/138

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 4. Document ID: US 20050038283 A1

L5: Entry 4 of 18

File: PGPB

Feb 17, 2005

PGPUB-DOCUMENT-NUMBER: 20050038283

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20050038283 A1

TITLE: Dicarboxylic diester, process for producing the same, and refrigerating machine lubricating oil comprising the ester

PUBLICATION-DATE: February 17, 2005

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|--------------------|-----------|-------|---------|
| Kawahara, Yasuyuki | Uji-shi | | JP |
| Takahashi, Kouji | Kyoto-shi | | JP |
| Takii, Makiko | Uji-shi | | JP |

US-CL-CURRENT: 560/76; 560/127

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 5. Document ID: US 20030055179 A1

L5: Entry 5 of 18

File: PGPB

Mar 20, 2003

PGPUB-DOCUMENT-NUMBER: 20030055179

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030055179 A1

TITLE: Olefin block copolymers processes for producing the same and uses thereof

PUBLICATION-DATE: March 20, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | COUNTRY |
|------------------|---------------|-------|---------|
| Ota, Seiji | Kuga-gun | | JP |
| Moriya, Satoru | Ichihara-shi | | JP |
| Mori, Ryoji | Kuga-gun | | JP |
| Koda, Taku | Kuga-gun | | JP |
| Tan, Junji | Kuga-gun | | JP |
| Kojoh, Shinichi | Sodegaura-shi | | JP |
| Kaneko, Hideyuki | Sodegaura-shi | | JP |
| Hama, Shunichi | Chiba-shi | | JP |
| Nobori, Tadahito | Sodegaura-shi | | JP |
| Matsugi, Tomoaki | Sodegaura-shi | | JP |
| Kashiwa, Norio | Sodegaura-shi | | JP |

US-CL-CURRENT: 525/242; 525/313

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMOC | Draw. D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|

☐ 6. Document ID: US 7160949 B2

L5: Entry 6 of 18

File: USPT

Jan 9, 2007

US-PAT-NO: 7160949

DOCUMENT-IDENTIFIER: US 7160949 B2

TITLE: Olefin block copolymers, processes for producing the same and uses thereof

PRIOR-PUBLICATION:

| DOC-ID | DATE |
|-------------------|----------------|
| US 20030055179 A1 | March 20, 2003 |

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMOC | Draw. D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|---------|

☐ 7. Document ID: US 7153620 B2

L5: Entry 7 of 18

File: USPT

Dec 26, 2006

US-PAT-NO: 7153620

DOCUMENT-IDENTIFIER: US 7153620 B2

TITLE: Transparent invisible conductive grid

PRIOR-PUBLICATION:

DOC-ID

DATE

US 20050064154 A1

March 24, 2005

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 8. Document ID: US 7083885 B2

L5: Entry 8 of 18

File: USPT

Aug 1, 2006

US-PAT-NO: 7083885

DOCUMENT-IDENTIFIER: US 7083885 B2

**** See image for Certificate of Correction ****

TITLE: Transparent invisible conductive grid

PRIOR-PUBLICATION:

DOC-ID

DATE

US 20050064152 A1

March 24, 2005

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 9. Document ID: US 6818601 B1

L5: Entry 9 of 18

File: USPT

Nov 16, 2004

US-PAT-NO: 6818601

DOCUMENT-IDENTIFIER: US 6818601 B1

TITLE: Dispersant-viscosity improvers for lubricating oil compositions

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 10. Document ID: US 6667285 B1

L5: Entry 10 of 18

File: USPT

Dec 23, 2003

US-PAT-NO: 6667285

DOCUMENT-IDENTIFIER: US 6667285 B1

TITLE: Lubricating oil for refrigerator, hydraulic fluid composition for

refrigerator and method for lubricating of refrigerator

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMCC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
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| Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS |
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| Terms | Documents |
| L3 and acid number | 18 |

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Search Results - Record(s) 11 through 18 of 18 returned.

☐ 11. Document ID: US 5811378 A

L5: Entry 11 of 18

File: USPT

Sep 22, 1998

US-PAT-NO: 5811378

DOCUMENT-IDENTIFIER: US 5811378 A

TITLE: Metal containing dispersant-viscosity improvers for lubricating oils

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 12. Document ID: US 5540851 A

L5: Entry 12 of 18

File: USPT

Jul 30, 1996

US-PAT-NO: 5540851

DOCUMENT-IDENTIFIER: US 5540851 A

TITLE: Dispersant-viscosity improvers for lubricating oil compositions

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 13. Document ID: US 5512192 A

L5: Entry 13 of 18

File: USPT

Apr 30, 1996

US-PAT-NO: 5512192

DOCUMENT-IDENTIFIER: US 5512192 A

TITLE: Dispersant-viscosity improvers for lubricating oil compositions

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 14. Document ID: US 5427700 A

L5: Entry 14 of 18

File: USPT

Jun 27, 1995

US-PAT-NO: 5427700

DOCUMENT-IDENTIFIER: US 5427700 A

TITLE: Functional fluid with triglycerides, detergent-inhibitor additives and

viscosity modifying additives

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMOC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 15. Document ID: US 5298177 A

L5: Entry 15 of 18

File: USPT

Mar 29, 1994

US-PAT-NO: 5298177

DOCUMENT-IDENTIFIER: US 5298177 A

TITLE: Functional fluid with triglycerides, detergent-inhibitor additives and
viscosity modifying additives

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMOC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
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☐ 16. Document ID: US 4605711 A

L5: Entry 16 of 18

File: USPT

Aug 12, 1986

US-PAT-NO: 4605711

DOCUMENT-IDENTIFIER: US 4605711 A

TITLE: Modified poly(oxazolidone/urethane) compositions

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMOC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

☐ 17. Document ID: US 4504633 A

L5: Entry 17 of 18

File: USPT

Mar 12, 1985

US-PAT-NO: 4504633

DOCUMENT-IDENTIFIER: US 4504633 A

TITLE: Modified poly(oxazolidone/urethane) compositions

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMOC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
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☐ 18. Document ID: US 3404102 A

L5: Entry 18 of 18

File: USOC

Oct 1, 1968

US-PAT-NO: 3404102

DOCUMENT-IDENTIFIER: US 3404102 A

TITLE: Polycyclic epoxide compositions and presins produced therefrom

DATE-ISSUED: October 1, 1968

INVENTOR-NAME: STARCHER PAUL S; TINSLEY SAMUEL W ; ASH BERTRAND DUS-CL-CURRENT: 528/361, 528/406, 528/407, 528/418, 528/73, 549/515, 549/516,
549/539, 549/546, 549/560, 549/561

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|--------|

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| | |
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| Terms | Documents |
| L3 and acid number | 18 |

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(FILE 'HOME' ENTERED AT 14:32:04 ON 10 MAY 2007)

FILE 'CAPLUS' ENTERED AT 14:32:16 ON 10 MAY 2007

L1 STRUCTURE UPLOADED
S L1

FILE 'REGISTRY' ENTERED AT 14:32:43 ON 10 MAY 2007

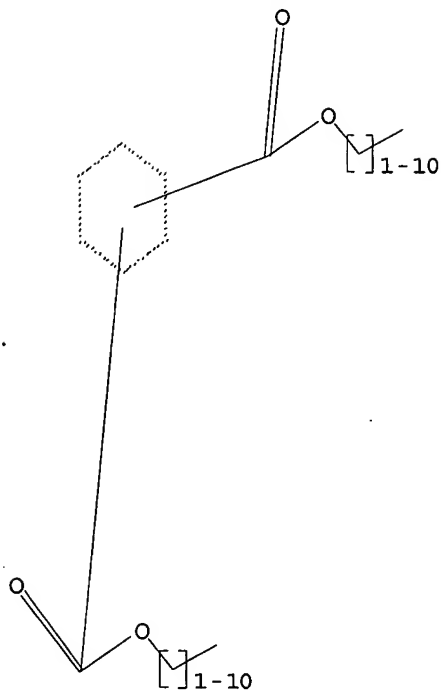
L2 16276 S L1 FULL

FILE 'CAPLUS' ENTERED AT 14:33:00 ON 10 MAY 2007

L3 6567 S L2 FULL
L4 3573 S L3 AND PY<1999
L5 216 S L4 AND (CYCLOHEXANE OR CYCLOHEXENE)
L6 0 S L5 AND TOTAL ACID AND SULF? AND PHOSPH? AND PEROXIDE
L7 0 S L5 AND TOTAL ACID
L8 2 S L4 AND (CYCLOHEXANE DICARBOXYL? OR CYCLOHEXENE DICARBOXYL?)
L9 145 S L4 AND (CYCLOHEXANEDICARBOXYL? OR CYCLOHEXENEDICARBOXYL?)
L10 115 S L4 AND (CYCLOHEXANEDICARBOXYLIC ACID OR CYCLOHEXENEDICARBOXY
L11 0 S L10 AND TOTAL ACID AND SULF? AND PHOSPH? AND PEROXIDE
L12 0 S L10 AND SULF? AND PHOSPH? AND PEROXIDE
L13 4 S L10 AND SULF?
L14 4 S L10 AND PHOSPH?
L15 2 S L10 AND PEROXIDE
L16 9 S L13 OR L14 OR L15

=>

=> d
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full
REGISTRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 14:32:44 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1453254 TO ITERATE

68.8% PROCESSED 1000000 ITERATIONS 16276 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.15

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1453254 TO 1453254
PROJECTED ANSWERS: 23192 TO 24114

L2 16276 SEA SSS FUL L1

L3 6567 L2

=> s l3 and py<1999
19201962 PY<1999
L4 3573 L3 AND PY<1999

=> s 14 and (cyclohexane or cyclohexene)

96251 CYCLOHEXANE

37946 CYCLOHEXENE

L5 216 L4 AND (CYCLOHEXANE OR CYCLOHEXENE)

=> s 15 and total acid and sulf? and phosph? and peroxide

1233411 TOTAL

4367313 ACID

4319 TOTAL ACID

(TOTAL(W)ACID)

1781480 SULF?

1833286 PHOSPH?

215880 PEROXIDE

L6 0 L5 AND TOTAL ACID AND SULF? AND PHOSPH? AND PEROXIDE

=> s 15 and total acid

1233411 TOTAL

4367313 ACID

4319 TOTAL ACID

(TOTAL(W)ACID)

L7 0 L5 AND TOTAL ACID

=> s 14 and (cyclohexane dicarboxyl? or cyclohexene dicarboxyl?)

96251 CYCLOHEXANE

76080 DICARBOXYL?

243 CYCLOHEXANE DICARBOXYL?

(CYCLOHEXANE(W)DICARBOXYL?)

37946 CYCLOHEXENE

76080 DICARBOXYL?

44 CYCLOHEXENE DICARBOXYL?

(CYCLOHEXENE(W)DICARBOXYL?)

L8 2 L4 AND (CYCLOHEXANE DICARBOXYL? OR CYCLOHEXENE DICARBOXYL?)

=> d 1-2 ibib abs hitstr

L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:650055 CAPLUS

DOCUMENT NUMBER: 129:303747

TITLE: Thermoset coating composition for precoated steel sheets

INVENTOR(S): Yoshida, Kenji; Anyashiki, Takashi; Itou, Kazumi; Oosuka, Shouichi

PATENT ASSIGNEE(S): Nkk Corporation, Japan

SOURCE: U.S., 24 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|--------------|
| US 5817731 | A | 19981006 | US 1996-707249 | 19960903 <-- |
| US 6018013 | A | 20000125 | US 1998-139001 | 19980824 |
| PRIORITY APPLN. INFO.: | | | US 1996-707249 | A3 19960903 |

OTHER SOURCE(S): MARPAT 129:303747

AB The title coating composition for precoated steel sheets which are required to have high hardness, high workability and high distinctness of image, comprises (i) 1-15% polyester polyol comprising repeating units derived from naphthalene-2,6-dicarboxylic acid and 1,4-cyclohexane-dicarboxylic acid and containing an alkylene group having ≤ 10 C atoms, or a 1,4-cyclohexylene-dimethylene group, or a neopentylene group, or a polyoxyalkylene group; or dibenzoyloxy-p-phenylene; (ii) other

polyol; and (iii) a curing agent isocyanate or amino resin. Thus, a coating composition contained naphthalene-2,6-dicarboxylic acid/ethylene glycol (I; 1:2 mol adduct) 1.8, di-Me isophthalate-di-Me terephthalate-ethylene glycol-neopentyl glycol-trimethylolpropane copolymer (number-average mol. weight

3000, OH value 60 mg KOH/g) 94.0, Desmodur BL 3175 cure agent 43.0, pigment 80.0, cure promoter 10.0, Acronal 4F flow aid 4.4 parts and was applied to a Zn treated steel sheet and baked to give a precoated steel sheet having 60° gloss 81%, pencil hardness H, crosscut adhesion 100, impact resistance >75 kg-cm, and MEK rub resistance >100; vs. 81.1, F, 100, 70, and >100; resp., without I.

IT 214418-50-5P 214418-51-6P 214418-52-7P

214418-53-8P 214418-54-9P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (coatings; thermoset coating composition for precoated steel sheets)

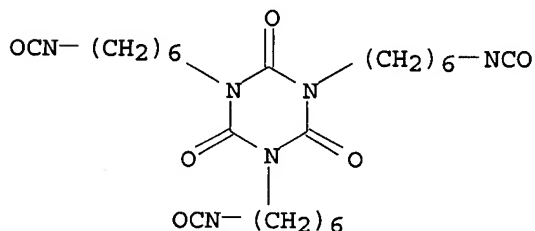
RN 214418-50-5 CAPLUS

CN 1,3-Benzenedicarboxylic acid, dimethyl ester, polymer with bis(2-hydroxyethyl) 1,4-cyclohexanedicarboxylate, dimethyl 1,4-benzenedicarboxylate, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 3779-63-3

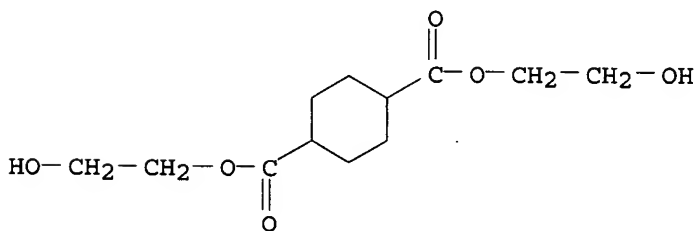
CMF C24 H36 N6 O6



CM 2

CRN 1571-00-2

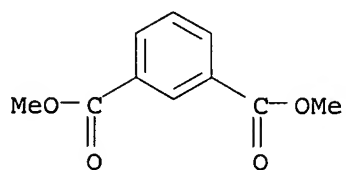
CMF C12 H20 O6



CM 3

CRN 1459-93-4

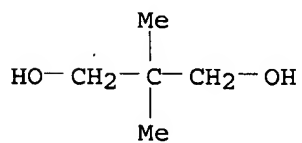
CMF C10 H10 O4



CM 4

CRN 126-30-7

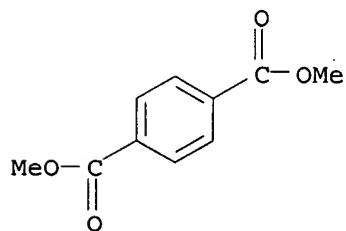
CMF C5 H12 O2



CM 5

CRN 120-61-6

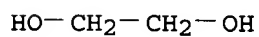
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CM 6

CRN 107-21-1

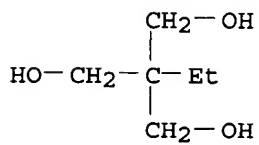
CMF C2 H6 O2



CM 7

CRN 77-99-6

CMF C6 H14 O3



RN 214418-51-6 CAPLUS

CN 1,3-Benzenedicarboxylic acid, dimethyl ester, polymer with
bis(2-hydroxyethyl) 1,4-cyclohexanedicarboxylate, Desmodur BL 4165,
dimethyl 1,4-benzenedicarboxylate, 2,2-dimethyl-1,3-propanediol,
1,2-ethanediol and 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (9CI) (CA
INDEX NAME)

CM 1

CRN 138361-16-7

CMF Unspecified

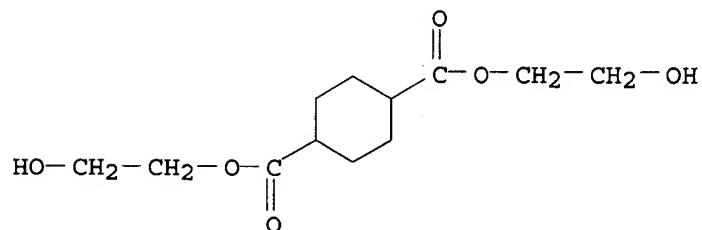
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1571-00-2

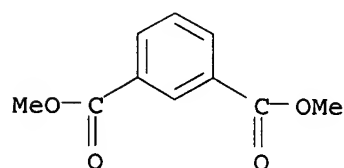
CMF C12 H20 O6



CM 3

CRN 1459-93-4

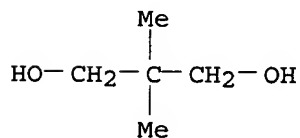
CMF C10 H10 O4



CM 4

CRN 126-30-7

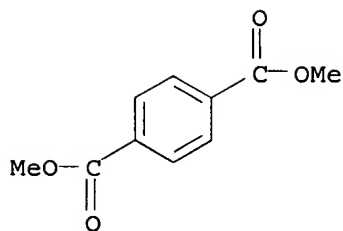
CMF C5 H12 O2



CM 5

CRN 120-61-6

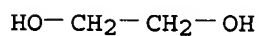
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CM 6

CRN 107-21-1

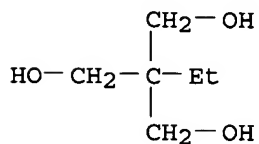
CMF C2 H6 O2



CM 7

CRN 77-99-6

CMF C6 H14 O3



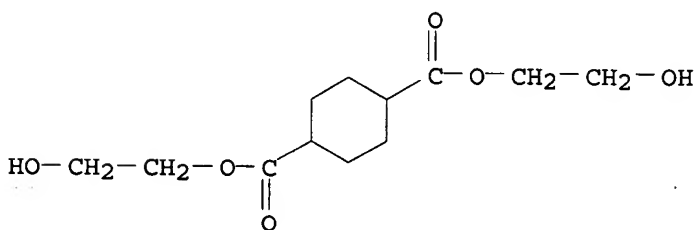
RN 214418-52-7 CAPLUS

CM 1,3-Benzenedicarboxylic acid, dimethyl ester, polymer with bis(2-hydroxyethyl) 1,4-cyclohexanedicarboxylate, dimethyl 1,4-benzenedicarboxylate, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, formaldehyde and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 1571-00-2

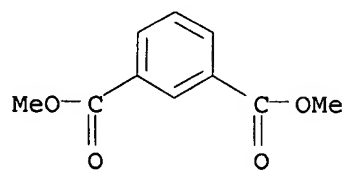
CMF C12 H20 O6



CM 2

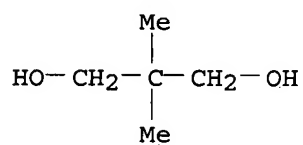
CRN 1459-93-4

CMF C10 H10 O4



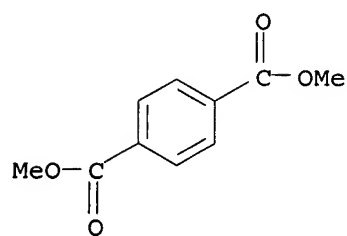
CM 3

CRN 126-30-7
CMF C5 H12 O2



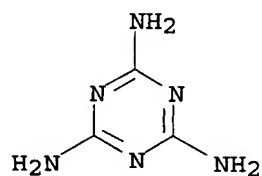
CM 4

CRN 120-61-6
CMF C10 H10 O4



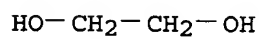
CM 5

CRN 108-78-1
CMF C3 H6 N6



CM 6

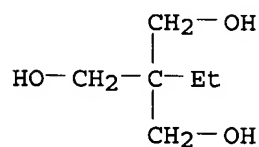
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CMF C2 H6 O2



CM 7

CRN 77-99-6

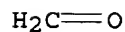
CMF C6 H14 O3



CM 8

CRN 50-00-0

CMF C H2 O



RN 214418-53-8 CAPLUS

CN 1,3-Benzenedicarboxylic acid, dimethyl ester, polymer with bis(2-hydroxyethyl) 1,4-cyclohexanedicarboxylate, Desmophen A 365, dimethyl 1,4-benzenedicarboxylate, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 119509-61-4

CMF Unspecified

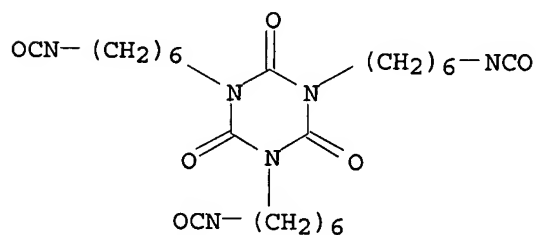
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 3779-63-3

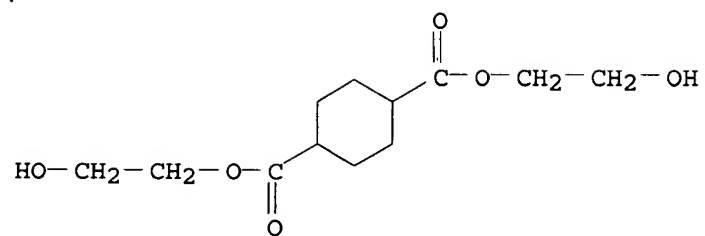
CMF C24 H36 N6 O6



CM 3

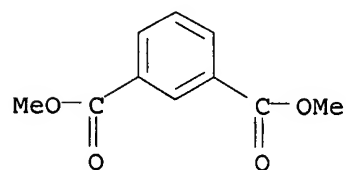
CRN 1571-00-2

CMF C12 H20 O6



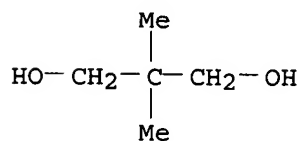
CM 4

CRN 1459-93-4
CMF C10 H10 O4



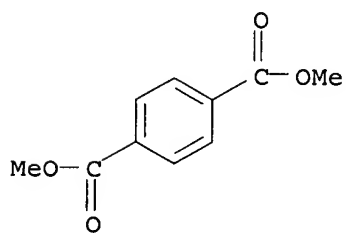
CM 5

CRN 126-30-7
CMF C5 H12 O2



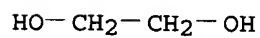
CM 6

CRN 120-61-6
CMF C10 H10 O4



CM 7

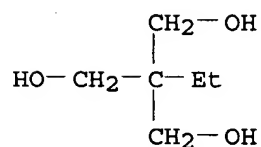
CRN 107-21-1
CMF C2 H6 O2



CM 8

CRN 77-99-6

CMF C6 H14 O3



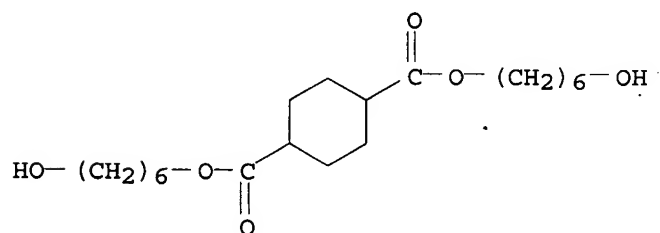
RN 214418-54-9 CAPLUS

CN 1,3-Benzenedicarboxylic acid, dimethyl ester, polymer with bis(6-hydroxyhexyl) 1,4-cyclohexanedicarboxylate, dimethyl 1,4-benzenedicarboxylate, 2,2-dimethyl-1,3-propanediol, 1,2-ethanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 211387-75-6

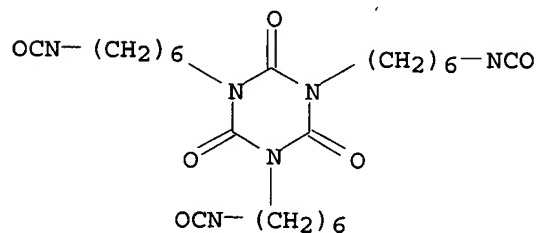
CMF C20 H36 O6



CM 2

CRN 3779-63-3

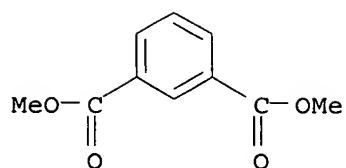
CMF C24 H36 N6 O6



CM 3

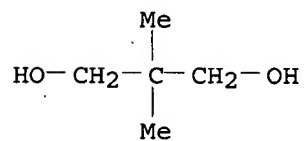
CRN 1459-93-4

CMF C10 H10 O4



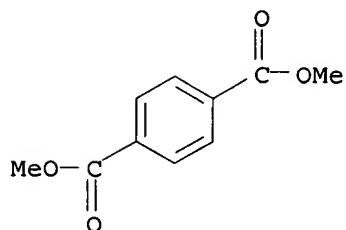
CM 4

CRN 126-30-7
CMF C5 H12 O2



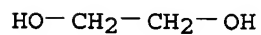
CM 5

CRN 120-61-6
CMF C10 H10 O4



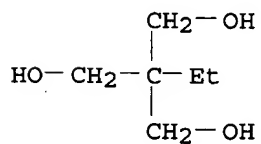
CM 6

CRN 107-21-1
CMF C2 H6 O2



CM 7

CRN 77-99-6
CMF C6 H14 O3



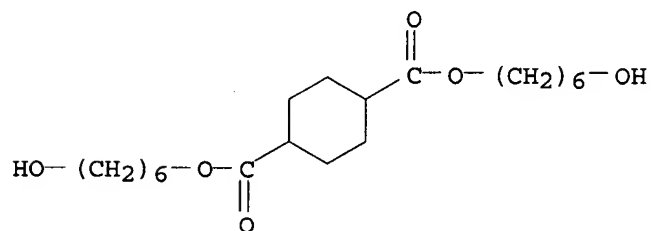
IT 211387-75-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(precursor binder for thermoset coating composition for precoated steel sheets)

RN 211387-75-6 CAPLUS

CN 1,4-Cyclohexanedicarboxylic acid, bis(6-hydroxyhexyl) ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:806489 CAPLUS

DOCUMENT NUMBER: 123:258875

TITLE: Polyolefin compositions for moldings with good flexural modulus and strength

INVENTOR(S): Sakurai, Keisuke; Ikeda, Naoki; Yana, Yoshitaka; Takatsu, Ryuichi

PATENT ASSIGNEE(S): Shin Nippon Rika Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 07173342 | A | 19950711 | JP 1993-345368 | 19931220 <-- |
| JP 3401888 | B2 | 20030428 | | |

PRIORITY APPLN. INFO.: JP 1993-345368 19931220

AB The title compns. comprise propylene polymers (e.g., PN-150) and/or polyolefin elastomers (e.g., Thermorun 5850N), cyclohexene or cyclohexane dicarboxylic acid esters (e.g., diisononyl hexahydrophthalate, didecyl hexahydrophthalate), and nucleation agents [e.g., Al hydroxybis(tert-butylbenzoate), sorbitol derivs., aromatic P compds., amides].

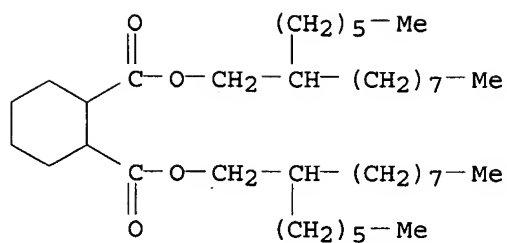
IT 163883-44-1 167907-26-8 167907-27-9
168022-09-1

RL: MOA (Modifier or additive use); USES (Uses)

(polyolefin compns. for moldings with good flexural modulus and strength)

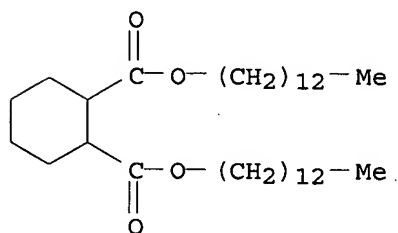
RN 163883-44-1 CAPLUS

CN 1,2-Cyclohexanedicarboxylic acid, bis(2-hexyldecyl) ester (9CI) (CA INDEX NAME)



RN 167907-26-8 CAPLUS

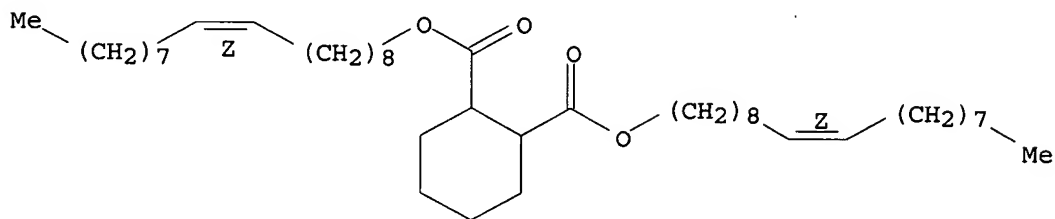
CN 1,2-Cyclohexanedicarboxylic acid, ditridecyl ester (9CI) (CA INDEX NAME)



RN 167907-27-9 CAPLUS

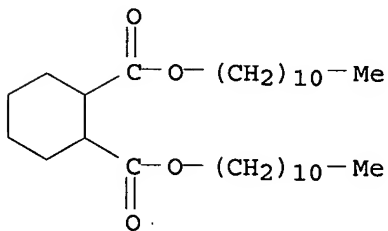
CN 1,2-Cyclohexanedicarboxylic acid, di-9-octadecenyl ester, (Z,Z)- (9CI)
(CA INDEX NAME)

Double bond geometry as shown.



RN 168022-09-1 CAPLUS

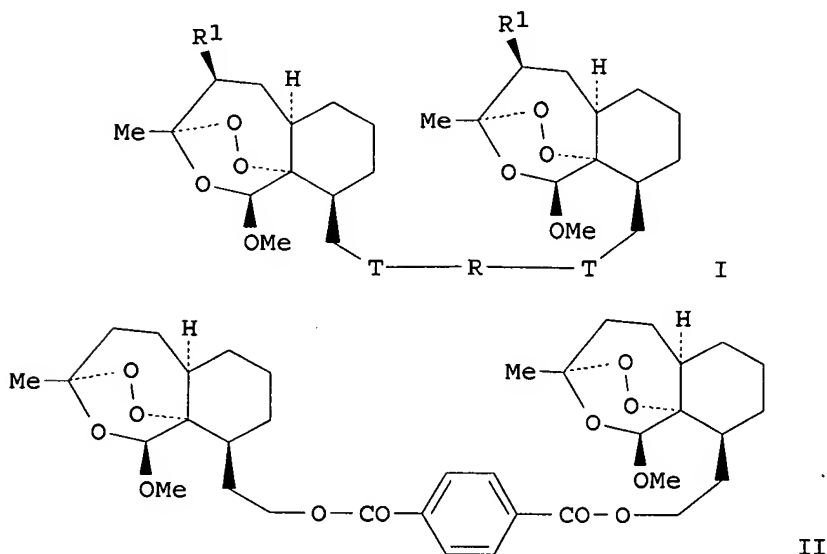
CN 1,2-Cyclohexanedicarboxylic acid, diundecyl ester (9CI) (CA INDEX NAME)



=>

ACCESSION NUMBER: 1998:774315 CAPLUS
 DOCUMENT NUMBER: 130:25205
 TITLE: Preparation of trioxane dimer compounds having antiproliferative and antitumor activities
 INVENTOR(S): Zheng, Qun Y.; Murray, Christopher; Daughenbaugh, Randall J.; Ploypradith, Poonsakdi; Posner, Gary H.
 PATENT ASSIGNEE(S): Hauser Inc., USA
 SOURCE: U.S., 43 pp., Cont.-in-part of U.S. 5.677,468.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|--------------|
| US 5840925 | A | 19981124 | US 1996-759254 | 19961202 <-- |
| US 5677468 | A | 19971014 | US 1995-496771 | 19950629 <-- |
| US 5856351 | A | 19990105 | US 1997-887708 | 19970703 |
| CA 2273374 | A1 | 19980611 | CA 1997-2273374 | 19971201 <-- |
| CA 2273374 | C | 20060418 | | |
| WO 9824786 | A1 | 19980611 | WO 1997-US21777 | 19971201 <-- |
| W: AU, CA, JP | | | | |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| AU 9874007 | A | 19980629 | AU 1998-74007 | 19971201 <-- |
| AU 730722 | B2 | 20010315 | | |
| EP 1021438 | A1 | 20000726 | EP 1997-949655 | 19971201 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| JP 2001505577 | T | 20010424 | JP 1998-525676 | 19971201 |
| US 6004997 | A | 19991221 | US 1998-197944 | 19981123 |
| US 38117 | E1 | 20030506 | US 2000-717815 | 20001121 |
| PRIORITY APPLN. INFO.: | | | US 1995-496771 | A2 19950629 |
| | | | US 1996-759254 | A 19961202 |
| | | | WO 1997-US21777 | W 19971201 |
| OTHER SOURCE(S): | | | MARPAT 130:25205 | |
| GI | | | | |



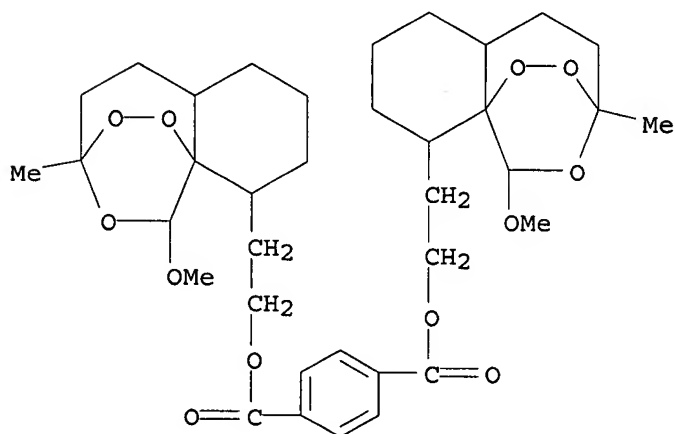
AB Novel trioxane dimers of formula I [R1 = H, Me, PhCH2, etc.; T = CH2O, CH2; R = O, arylene, alkylene, phosphate, (CH2CH2O)n, etc.; n = 1-20] are prepared which possess antiproliferative and antitumor activities. Thus, II was prepared from terephthaloyl chloride and trioxane alc. II was shown to be potent against various cancer cell lines compared to paclitaxel.

IT 151120-88-6P 216319-09-4P 216319-13-0P
216319-52-7P 216319-56-1P 216385-27-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of trioxane dimer compds. having antiproliferative and antitumor activities)

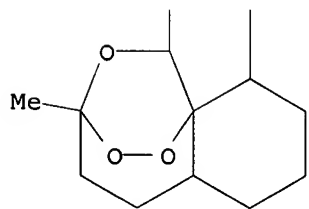
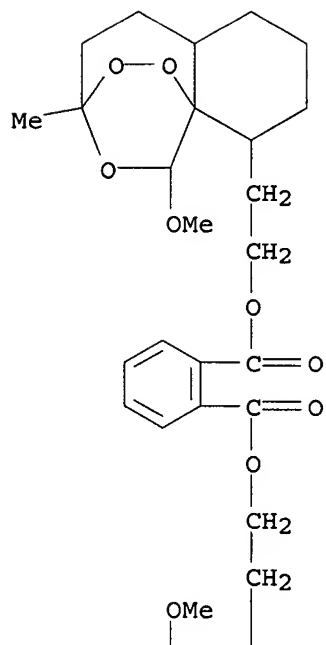
RN 151120-88-6 CAPLUS

CN 1,4-Benzenedicarboxylic acid, bis[2-[(3R,5aR,9S,9aR,10S)-octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-1,2-benzodioxepin-9-yl]ethyl] ester, rel- (9CI) (CA INDEX NAME)



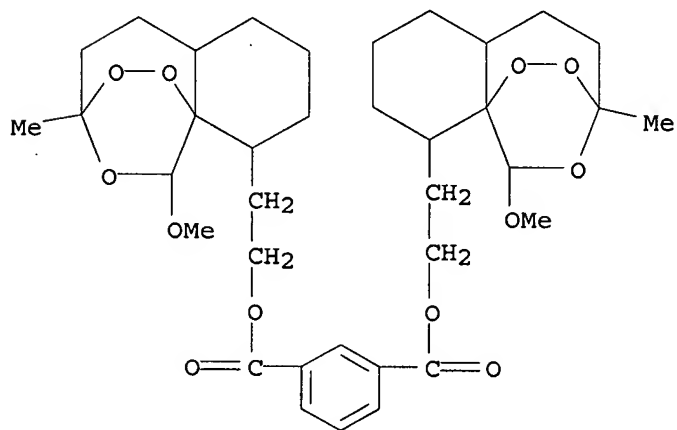
RN 216319-09-4 CAPLUS

CN 1,2-Benzenedicarboxylic acid, bis[2-[(3R,5aR,9S,9aR,10S)-octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-1,2-benzodioxepin-9-yl]ethyl] ester, rel- (9CI) (CA INDEX NAME)



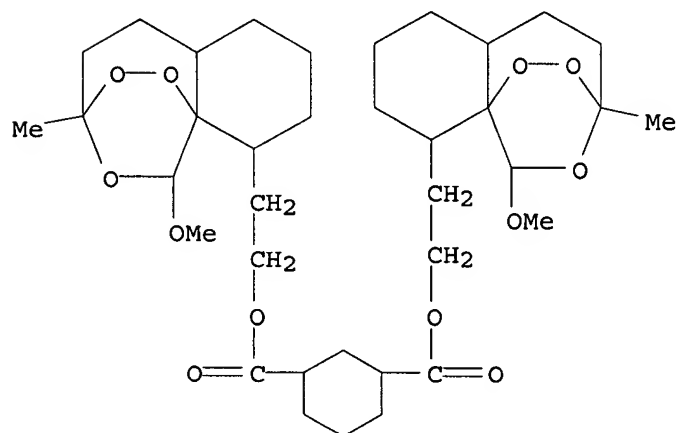
RN 216319-13-0 CAPLUS

CN 1,3-Benzenedicarboxylic acid, bis[2-[(3R,5aR,9S,9aR,10S)-octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-1,2-benzodioxepin-9-yl]ethyl] ester, rel- (9CI) (CA INDEX NAME)



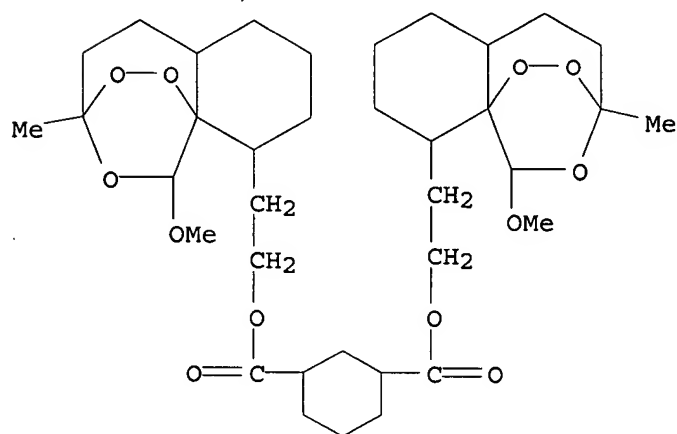
RN 216319-52-7 CAPLUS

CN 1,3-Cyclohexanedicarboxylic acid, bis[2-[(3R,5aR,9S,9aR,10S)-octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-1,2-benzodioxepin-9-yl]ethyl] ester, (1R,3S)-rel- (9CI) (CA INDEX NAME)



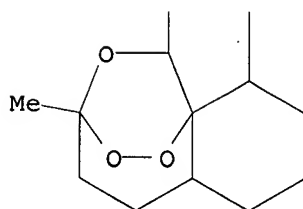
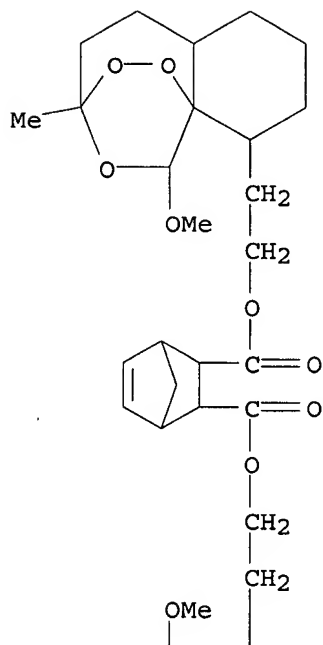
RN 216319-56-1 CAPLUS

CN 1,3-Cyclohexanedicarboxylic acid, bis[2-[(3R,5aR,9S,9aR,10S)-octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-1,2-benzodioxepin-9-yl]ethyl] ester, rel- (9CI) (CA INDEX NAME)



RN 216385-27-2 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2,3-dicarboxylic acid, bis[2-[(3R,5aR,9S,9aR,10S)-octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-1,2-benzodioxepin-9-yl]ethyl] ester, rel- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:394336 CAPLUS

DOCUMENT NUMBER: 129:67902

TITLE: Preparation of trioxane dimer compounds having antiproliferative and antitumor activities

INVENTOR(S): Zheng, Qun Y.; Murray, Christopher; Daughenbaugh, Randall J.; Ploypradith, Poonsakdi; Posner, Gary H.

PATENT ASSIGNEE(S): Hauser, Inc., USA; Johns Hopkins University

SOURCE: PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

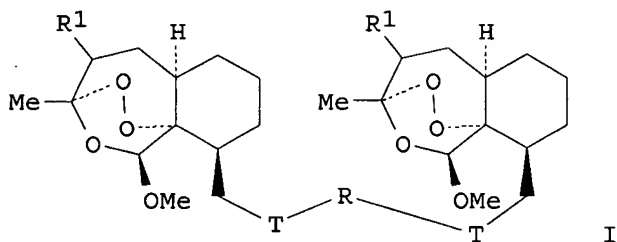
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|--------------|
| WO 9824786 | A1 | 19980611 | WO 1997-US21777 | 19971201 <-- |
| W: AU, CA, JP | | | | |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 5840925 | A | 19981124 | US 1996-759254 | 19961202 <-- |

| | | | | |
|---|----|----------|-----------------|--------------|
| CA 2273374 | A1 | 19980611 | CA 1997-2273374 | 19971201 <-- |
| CA 2273374 | C | 20060418 | | |
| AU 9874007 | A | 19980629 | AU 1998-74007 | 19971201 <-- |
| AU 730722 | B2 | 20010315 | | |
| EP 1021438 | A1 | 20000726 | EP 1997-949655 | 19971201 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| JP 2001505577 | T | 20010424 | JP 1998-525676 | 19971201 |
| PRIORITY APPLN. INFO.: | | | US 1996-759254 | A 19961202 |
| | | | US 1995-496771 | A2 19950629 |
| | | | WO 1997-US21777 | W 19971201 |

OTHER SOURCE(S): MARPAT 129:67902

GI

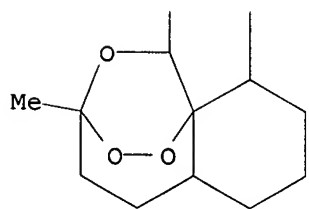
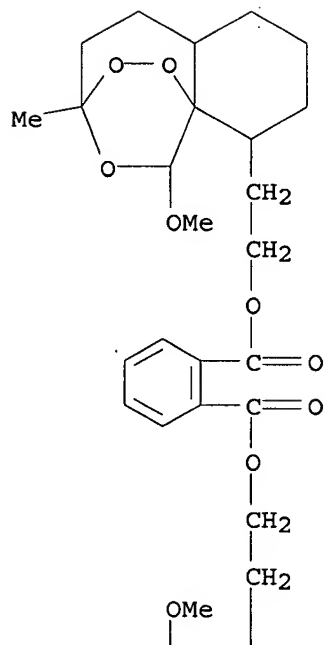


AB Novel trioxane dimers of formula I [R1 = H, Me, CH2Ph; R = O, aryl, heteroaryl, alkyl, phosphate, or other linker; T = CH2, CH2O] are prepared which possess antiproliferative and antitumor activities. Thus, I (R1 = H, R = O, T = CH2) is prepared from the trioxane alc. and showed more potent antitumor activity than paclitaxel.

IT 196616-62-3P 196616-64-5P 196616-71-4P
196699-43-1P 208850-42-4P 209068-20-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of trioxane dimers having antiproliferative and antitumor activities)

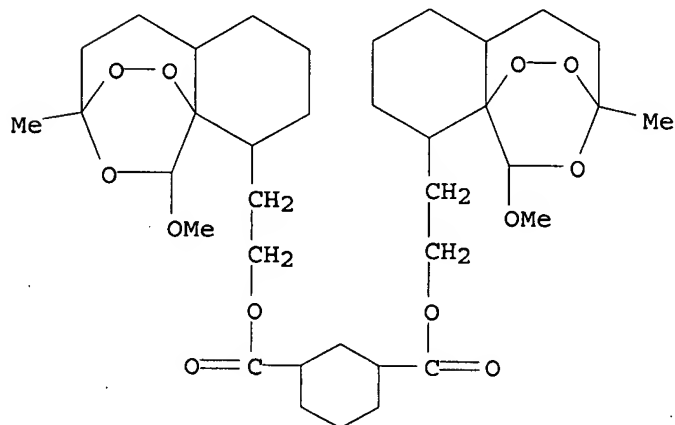
RN 196616-62-3 CAPLUS

CN 1,2-Benzenedicarboxylic acid, bis[2-[(3R,5aR,9S,9aR,10S)-octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-1,2-benzodioxepin-9-yl]ethyl] ester (9CI) (CA INDEX NAME)



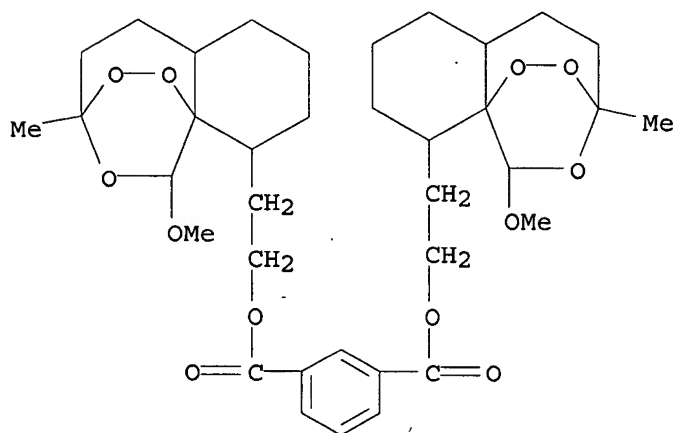
RN 196616-64-5 CAPLUS

CN 1,3-Cyclohexanedicarboxylic acid, bis[2-[(3R,5aR,9S,9aR,10S)-octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-1,2-benzodioxepin-9-yl]ethyl] ester (9CI) (CA INDEX NAME)



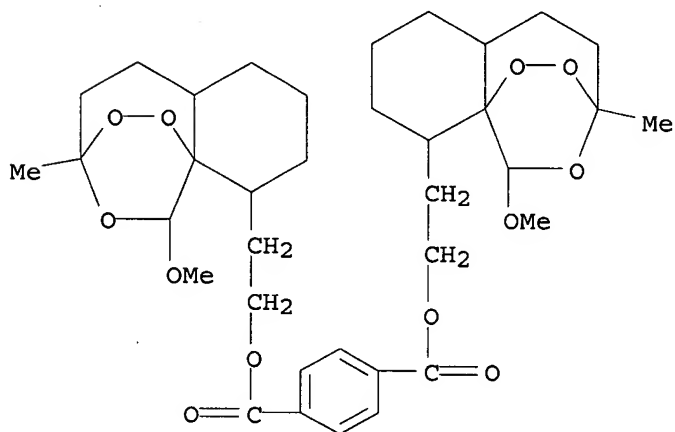
RN 196616-71-4 CAPLUS

CN 1,3-Benzenedicarboxylic acid, bis[2-[(3R,5aR,9S,9aR,10S)-octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-1,2-benzodioxepin-9-yl]ethyl] ester (9CI) (CA INDEX NAME)



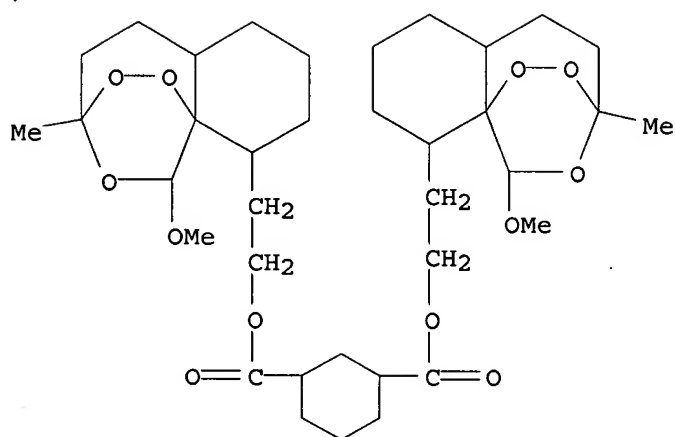
RN 196699-43-1 CAPLUS

CN 1,4-Benzenedicarboxylic acid, bis[2-[(3R,5aR,9S,9aR,10S)-octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-1,2-benzodioxepin-9-yl]ethyl] ester (9CI) (CA INDEX NAME)



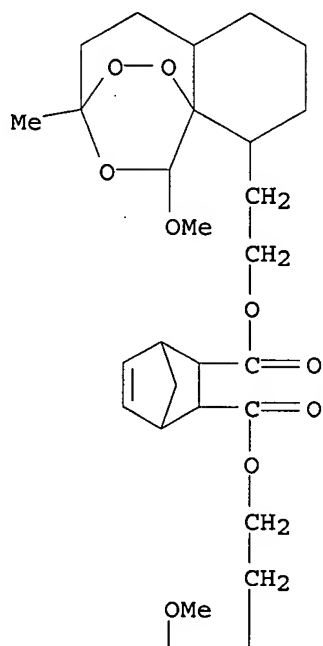
RN 208850-42-4 CAPLUS

CN 1,3-Cyclohexanedicarboxylic acid, bis[2-[(3R,5aR,9S,9aR,10S)-octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-1,2-benzodioxepin-9-yl]ethyl] ester, (1R,3S)- (9CI) (CA INDEX NAME)

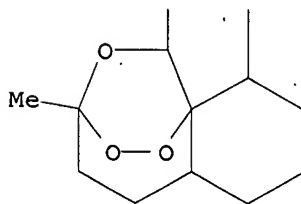


RN 209068-20-2 CAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2,3-dicarboxylic acid, bis[2-
 [(3R,5aR,9S,9aR,10S)octahydro-10-methoxy-3-methyl-3,9a-(epoxymethano)-9aH-
 1,2-benzodioxepin-9-yl]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

L16 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:325808 CAPLUS

DOCUMENT NUMBER: 120:325808

TITLE: Waterborne coatings based on sulfonated polyester resins

AUTHOR(S): Kuo, Thauming; Moody, Keith M.; Blount, William W.

CORPORATE SOURCE: Eastman Chem. Co., Kingsport, TN, 37662, USA

SOURCE: European Polymers Paint Colour Journal (1993), 183(4336), 445-8

CODEN: EPPJEJ; ISSN: 0963-8474

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Curable sulfo group-containing polyester resins for preparation of waterborne baking coatings were prepared by 2-step polymerization of 5-(sodiumsulfo)-isophthalic acid or bis(2-hydroxyethyl) 5-sodiumsulfoisphthalate with neopentyl glycol, trimethylolpropane, isophthalic acid, adipic acid, and 1,3- or 1,4-cyclohexanedicarboxylic acid at various monomer ratios. Cured coatings, either clear or pigmented with TiO₂, were prepared by thermal curing the resins with HCHO-melamine copolymer. The cured coatings had low content of volatile organic compds., were non-alkaline, and

were free of amines. When properly formulated, the coatings exhibited excellent hardness/flexibility ratio and humidity resistance; the presence of TiO₂ improved the stability fo the coatings. The curing of enamels is internally-catalyzed, which leads to coatings free of wrinkling.

IT 151486-90-7P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coatings, waterborne, preparation and properties of cured)

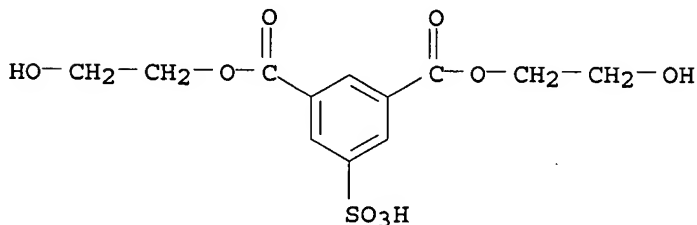
RN 151486-90-7 CAPLUS

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-bis(2-hydroxyethyl) ester, monosodium salt, polymer with 1,3-benzenedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, formaldehyde, hexanedioic acid and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 24019-46-3

CMF C12 H14 O9 S . Na

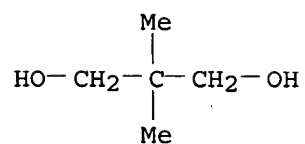


● Na

CM 2

CRN 126-30-7

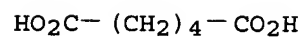
CMF C5 H12 O2



CM 3

CRN 124-04-9

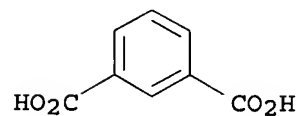
CMF C6 H10 O4



CM 4

CRN 121-91-5

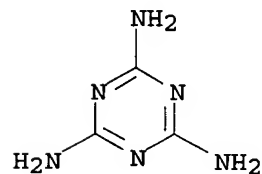
CMF C8 H6 O4



CM 5

CRN 108-78-1

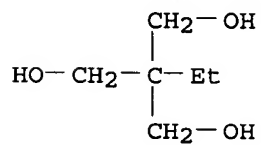
CMF C3 H6 N6



CM 6

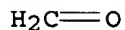
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CMF C6 H14 O3



CM 7

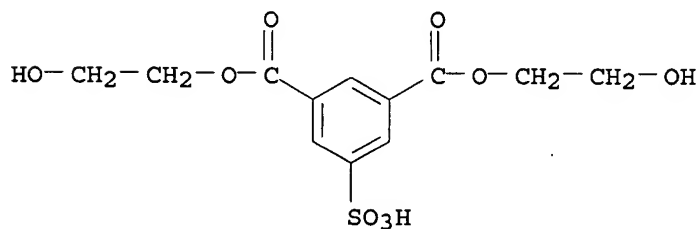
CRN 50-00-0
CMF C H2 O



IT 151486-88-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of, for use in waterborne coatings)
RN 151486-88-3 CAPLUS
CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-bis(2-hydroxyethyl) ester,
monosodium salt, polymer with 1,3-benzenedicarboxylic acid,
2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol
and hexanedioic acid (9CI) (CA INDEX NAME)

CM 1

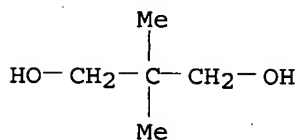
CRN 24019-46-3
CMF C12 H14 O9 S . Na



● Na

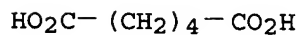
CM 2

CRN 126-30-7
CMF C5 H12 O2



CM 3

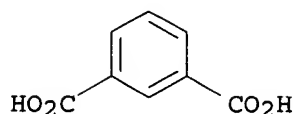
CRN 124-04-9
CMF C6 H10 O4



CM 4

CRN 121-91-5

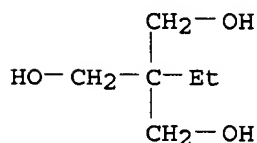
CMF C8 H6 O4



CM 5

CRN 77-99-6

CMF C6 H14 O3



L16 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1957:11069 CAPLUS

DOCUMENT NUMBER: 51:11069

ORIGINAL REFERENCE NO.: 51:2320g-i

TITLE: Polyesters. XVIII. Diels-Alder syntheses with unsaturated polyesters. 1. Lower-molecular-weight substances

AUTHOR(S): Batzer, Hans; Reblin, Hansjorgen

CORPORATE SOURCE: Tech. Hochschule, Stuttgart

SOURCE: Makromolekulare Chemie (1956), 18/19, 127-39

CODEN: MACEAK; ISSN: 0025-116X

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB cf. C.A. 50, 1356d. Substitution on a polymer chain induces changes in the viscosity behavior of the mol. because (a) substitution changes the hydrodynamically active form of the main chain and because (b) the group added offers a certain resistance to flow. Attempts were made to isolate the (b) effect by viscosity measurements on the cyclopentadiene and butadiene Diels-Alder adducts of the dicetyl esters of maleic, fumaric, and acetylenedicarboxylic acids. Small constant values were observed which support the contention of the authors that they were measuring only effect (b).

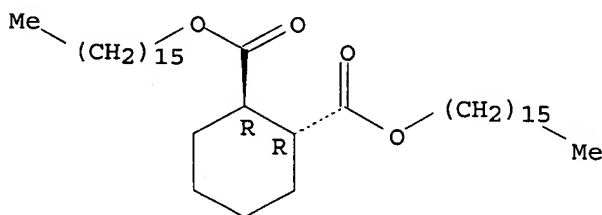
IT 888709-69-1P, 1,2-Cyclohexanedicarboxylic acid, trans-, dihexadecyl ester

RL: PREP (Preparation)
(preparation and viscosity of)

RN 888709-69-1 CAPLUS

CN 1,2-Cyclohexanedicarboxylic acid, trans-, dihexadecyl ester (6CI) (CA INDEX NAME)

Relative stereochemistry.



ACCESSION NUMBER: 1955:6041 CAPLUS
 DOCUMENT NUMBER: 49:6041
 ORIGINAL REFERENCE NO.: 49:1267g-i,1268a
 TITLE: Synergists with allethrin against the body louse
 AUTHOR(S): Eddy, G. W.; Cole, M. M.; Burden, G. S.
 CORPORATE SOURCE: Entomology Research Branch, U.S. Dept. Agr., Orlando, FL
 SOURCE: Journal of Economic Entomology (1954), 47, 501-6
 CODEN: JEENAI; ISSN: 0022-0493
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB cf. C.A. 44, 791a. Synergistic action of 203 compds. with allethrin was tested by beaker and patch tests with *Pediculus humanus* as the test organism. For the beaker tests, 70 compds. were definitely synergistic and 11 compds. were markedly synergistic, as compared with the standard sulfoxide (I) (1,2-methylenedioxy-4-[2-(octylsulfinyl)propyl]benzene). The test compds. were prepared at concns. of 0.05-0.1%, with allethrin at a concentration of 0.01%. Very effective compds.

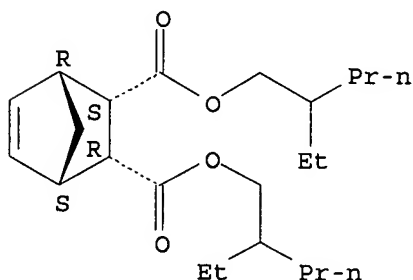
were further tested at 0.025, 0.01, or 0.005% concns. The 11 compds. more active than I were α -tert-butylpiperonyl phenylacetate, 5-butyl-5-ethyl-2-(3,4-methylenedioxyphenyl)-m-dioxane, α -allylpiperonyl fencholate, piperonyl fencholate, α -tert-butylpiperonyl acetate, α -cyclohexylpiperonyl acetate, and the following esters of chrysanthemumic acid (II): α -butylpiperonyl (III), α -tert-butylpiperonyl (IV), α -isopropylpiperonyl, α -(2-methylallyl)piperonyl (V), and 4-(3,4-methylenedioxyphenyl)-sec-Bu (VI). The patch tests involved use of 0.1% allethrin and 1% synergist in pyrophyllite and the standard was I. Nine compds. were equal to or slightly more effective than I. These were 1,2-methylenedioxy-4-[2-(octylsulfonyl)propyl]benzene, di-Bu piperonylidene malonate, and the following esters of II: α -allylpiperonyl, α -amylpiperonyl, α -ethylpiperonyl, III, IV, V, and VI.

IT 877210-71-4, Bicyclo[2.2.1]hept-5-ene-2,3-dicarboxylic acid, cis-, bis(2-ethylhexyl) ester
 (as allethrin synergist in control of body lice)

RN 877210-71-4 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2,3-dicarboxylic acid, cis-, bis(2-ethylhexyl) ester (5CI) (CA INDEX NAME)

Relative stereochemistry.



ACCESSION NUMBER: 1954:71590 CAPLUS
 DOCUMENT NUMBER: 48:71590
 ORIGINAL REFERENCE NO.: 48:12687c-i,12688a
 TITLE: Cyclic dienes. I. 1,2-Dimethylenecyclohexane

AUTHOR(S): Bailey, Wm. J.; Golden, Harold R.
CORPORATE SOURCE: Wayne Univ., Detroit, MI
SOURCE: Journal of the American Chemical Society (1953
, 75, 4780-2
CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 48:71590

AB 1,2-Dimethylenecyclohexane (I) was prepared in a 4-step synthesis from o-C₆H₄(CO₂Et)₂ (II) in an over-all yield of 77%. Its structure was proved by its UV absorption, ozonolysis, and conversion through a Diels-Alder adduct to the known 2-C₁₀H₇CO₂H (III). II (228 g.) hydrogenated at 1900 lb./sq. in. pressure and 60° over 20 g. (30 cc.) Raney Ni yielded 205 g. (90%) di-Et hexahydrophthalate (IV), b₂₃ 150-2°, n_{25D} 1.4505. To 50 g. LiAlH₄ suspended in 1 l. dry Et₂O was added during 1 h. 228 g. IV in 750 cc. Et₂O at such a rate as to maintain gentle refluxing, the mixture decomposed after 15 min. very cautiously with cooling with 50 cc. H₂O, diluted with stirring with 2 l. 10% HCl until the Al(OH)₃ was just dissolved and the aqueous solution had pH 2, the aqueous layer extracted with Et₂O continuously overnight, the combined extract and

Et₂O layer evaporated, and the residue distilled to give 128 g. (90%) crude product, b₃ 134-6°, which crystallized on standing overnight, m. 38-42°; recrystd. from Et₂O-hexane, it gave pure cis-hexahydrophthalyl alc. (V), m. 43-3.5. IV (10 g.) (presumably 75% cis and 25% trans) refluxed with 100 cc. 10% NaOEt in EtOH gave pure trans-isomer (VI) of IV, b₂₂ 150°, n_{25D} 1.4475. VI (7.5 g.) reduced with 4.0 g. LiAlH₄ in 200 cc. Et₂O, and the resulting crude product worked up in the usual manner gave pure trans-isomer (VII) of V, m. 55-6°. Hexahydrophthalyl alc. (175 g.) and 1 cc. pyridine heated at 120°, the mixture treated during 0.5 h. with 376 g. Ac₂O, and the AcOH and excess Ac₂O removed in vacuo gave 260 g. (95%) hexahydrophthalyl diacetate (VIII), b₁₀ 152-3°, n_{25D} 1.4578. VIII (456 g.) pyrolyzed in an inert N atmospheric in a Pyrex column at 515 ± 5° at a rate of 2 g./min., the pyrolysis products washed acid-free with H₂O (the washings contained a 65% yield of AcOH), dried with MgSO₄, and distilled with 0.1 g. tert-butylcatechol gave 86 g. [40% crude I, b₉₅ 59-60°, 117 g. (35%) crude 1-methylene-2-(acetoxymethyl)cyclohexane (IX) in 2 consecutive fractions, b₂₀ 95-100°, and b₂₀ 100-8°], and 91 g. (20%) recovered VIII (in 2 consecutive fractions, b₁₀ 145-52° and b₁₀ 152-5°). The crude I fractionated gave pure I, b₉₀ 60-1°, b₇₄₀ 124°, n_{25D} 1.4718, λ_{maximum} 220 mμ (ε 10050). The crude IX redistd. gave pure IX, b₂₀ 105-6°, n_{25D} 1.4625. Crude IX pyrolyzed at 520° at a rate of 2 g./min. yielded 43 g. (58%) I and 41 g. (37%) recovered IX. I (2.70 g.), 2.45 g. maleic anhydride, and 50 cc. Et₂O refluxed 15 min., and the Et₂O evaporated gave 5.1 g. (99%) Δ⁹(10)-octahydro-2,3-naphthalenedicarboxylic acid anhydride (X), m. 135-9°; recrystd. from Et₂O, m. 139-40°. I (5.4 g.), 4.9 g. HC.tplbond.CCO₂Et and 50 cc. Et₂O refluxed 2 h. and distilled gave 7.8 g. (76%) Et 1,4,5,6,7,8-hexahydro-2-naphthalenecarboxylate, b₂ 130°, n_{25D} 1.4700. X (0.2 g.) heated 2 h. in a stream of CO₂ with 0.2 g. 5% Pd-on-C and the residue distilled gave 1.2 g. 2-C₁₀H₇CO₂Et, b₂ 118-20°, n_{25D} 1.5942, hydrolyzed to III, m. 185°. (.tplbond.CCO₂Et)₂ (8.5 g.) and 5.4 g. I in 50 cc. Et₂O refluxed 2 h., the Et₂O evaporated, and the residue distilled gave 9.8 g. (71%) di-Et 1,4,5,6,7,8-hexahydro-2,3-naphthalenedicarboxylate, b₁ 152-5°, n_{25D} 1.4990, which, hydrolyzed, decarboxylated, and dehydrogenated with 5% Pd-on-C and Cu chromite, gave C₁₀H₈, m. 79°. I (1.08 g.) in 75 cc. EtOAc treated with 0.019 mol O₃, the solution concentrated to 5 cc. in vacuo at room temperature, the residue heated 0.5 h. with 15 cc. 30% H₂O₂ and 20 cc.

AcOH

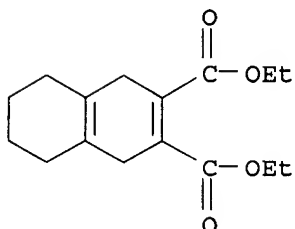
on the steam bath, the excess peroxide destroyed, the solution evaporated to dryness, and the residue (1.25 g.) recrystd. from a small amount of H₂O yielded 1.10 g. (75%) adipic acid, m. 151-2°; the CH₂O

liberated in the ozonolysis was identified as the dimethone derivative, m.
188-9°.

IT 791611-92-2P, 2,3-Naphthalenedicarboxylic acid,
1,4,5,6,7,8-hexahydro-, diethyl ester
RL: PREP (Preparation)
(preparation of)

RN 791611-92-2 CAPLUS

CN 2,3-Naphthalenedicarboxylic acid, 1,4,5,6,7,8-hexahydro-, diethyl ester
(5CI) (CA INDEX NAME)



L16 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1953:20987 CAPLUS

DOCUMENT NUMBER: 47:20987

ORIGINAL REFERENCE NO.: 47:3616c-e

TITLE: Polymers of 3,6-epoxy-1,2-cyclohexanedicarboxylic acid esters

INVENTOR(S): Fluchaire, M. L. A.; Collardeau, G.

PATENT ASSIGNEE(S): Societe des usines chimiques de Rhone-Poulenc

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

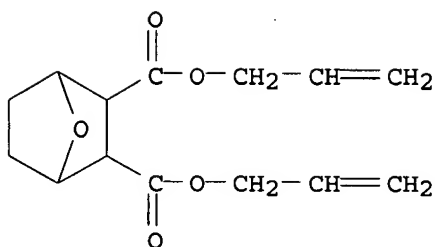
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|--------------|
| FR 977286 | | 19510329 | FR | 19481106 <-- |

AB Diallyl type, e.g. allyl, methallyl, and chlorallyl, esters of 3,6-epoxy-1,2-cyclohexanedicarboxylic acid or derivs. thereof, prepared in any of the usual ways, are polymerized as in preceding abstract and may be applied in the same ways as the polymers of that patent. Examples are: (1) 60 g. epoxycyclohexanedicarboxylic acid (I), 100 g. allyl alc., 50 g. C₆H₆, and 4 g. benzenesulfonic acid are distilled to give a 69% yield of the diester, b₂ 169-170°, crystallizing at 36.5°, sp. gr. 440 1.143, which is heated with 5% Bz₂O₂ at 75° to give a gel in 3.5 hrs. and an insol. resin in 24 hrs. (2) Replacing the anhydride used in (1) by its 3-methyl derivative gives a diester, b₅ 172-7°, crystallizing at 41.7°, sp. gr. 450 1.104, which polymerizes as in (1) by using acetone peroxide. (3) A mixture of compound I and 8 g. methallyl alc. is distilled; 23 g. more alc. is added to keep the temperature at 180°. The resulting diester, b₅ 157-60°, sp. gr. 425 1.104, n_D20 1.4830, polymerizes at 75° by using 5% Bz₂O₂.

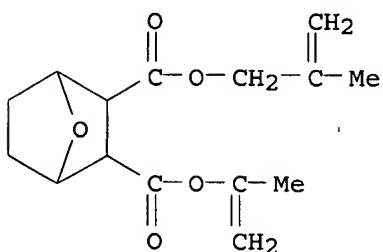
IT 857592-77-9, Allyl alcohol, ester (di-) with 7-oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid (and polymers)

RN 857592-77-9 CAPLUS

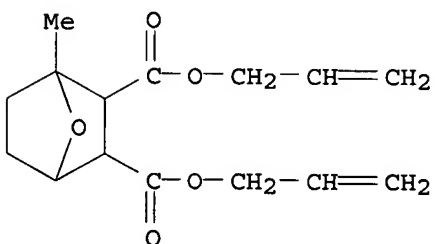
CN Allyl alcohol, ester (di-) with 7-oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid (5CI) (CA INDEX NAME)



IT 857231-52-8P, 2-Propen-1-ol, 2-methyl-, diester with
 7-oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid 873392-88-2P,
 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid, 1-methyl-, diallyl ester
 RL: PREP (Preparation)
 (preparation of)
 RN 857231-52-8 CAPLUS
 CN 2-Propen-1-ol, 2-methyl-, diester with 7-oxabicyclo[2.2.1]heptane-2,3-
 dicarboxylic acid (5CI) (CA INDEX NAME)



RN 873392-88-2 CAPLUS
 CN 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid, 1-methyl-, diallyl ester
 (5CI) (CA INDEX NAME)

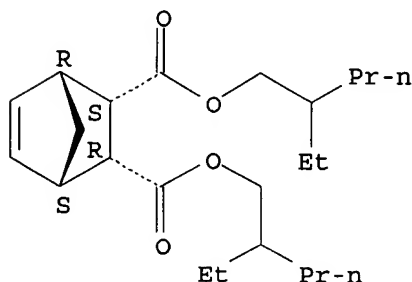


L16 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1950:3982 CAPLUS
 DOCUMENT NUMBER: 44:3982
 ORIGINAL REFERENCE NO.: 44:791a-c
 TITLE: Evaluation of materials as synergists with pyrethrum
 against the body louse
 AUTHOR(S): Carson, N. B.; Eddy, Gaines W.
 SOURCE: Journal of Economic Entomology (1949), 42,
 694-9
 CODEN: JEENAI; ISSN: 0022-0493
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 AB Preliminary tests by 2 methods of 446 compds. as synergists with pyrethrum
 against the body louse (Pediculus humanus corporis) are reported. The
 following 23 compds., at 0.25% + 0.025% pyrethrins, at 0.125 + 0.0125%

pyrethrins, and at 0.05% + 0.005% pyrethrins showed synergistic action: N-isobutylhendecylenamide (IN-930) (III); di-allyl d-camphorate (IV); bis(2-ethylhexyl) cis-3,6-endomethylene-1,2,3,6-tetrahydrophthalate; di-Bu, di-Et, di-Pr, and diiso-Pr hexahydrophthalate; di-Pr homophthalate; isosafrole; Et 3,4-methylenedioxycinnamate (V); 1-(3,4-methylenedioxyphenyl)-1-acetoxy-3-butene (VII); 2-methyl-2-phenylcyclohexanone; di-sec-Bu and diiso-Pr phthalate; piperonylacetonitrile; piperonyl butoxide; piperonylcyclonene (II); Am (VI), Bu, Et, and Pr piperonylate; di-Bu (I) and di-Et piperonylidenemalonate. Another 90 compds. showed slight or questionable synergism. Most effective synergists determined by the arm and leg method (Bushland, et al., J. Parasitol. 30, 377 (1944)) were I, II, and III. In tests by the beaker method (Bushland, et al., loc. cit.), the most effective synergists were I, II, III, IV, V, VI, VII.

IT 877210-71-4, Bicyclo[2.2.1]hept-5-ene-2,3-dicarboxylic acid, cis-, bis(2-ethylhexyl) ester
(as synergist for pyrethrin)
RN 877210-71-4 CAPLUS
CN Bicyclo[2.2.1]hept-5-ene-2,3-dicarboxylic acid, cis-, bis(2-ethylhexyl) ester (5CI) (CA INDEX NAME)

Relative stereochemistry.



L16 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1944:41984 CAPLUS
DOCUMENT NUMBER: 38:41984
ORIGINAL REFERENCE NO.: 38:6289f-i,6290a-i
TITLE: Synthetic experiments in the series of the cinchona alkaloids. V. Configuration of the asymmetric C atoms 3, 4 and 8 of the cinchona alkaloids
AUTHOR(S): Prelog, V.; Zalan, E.
SOURCE: Helvetica Chimica Acta (1944), 27, 535-45
CODEN: HCACAV; ISSN: 0018-019X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB cf. C. A. 38, 4602.2. The configuration of the asym. C atoms 3, 4 and 8 of the quinuclidine half of the cinchona alkaloids has been established by conclusions drawn from the reported expts. For the establishment of the configuration of C atom 3, cincholoipon Et ester (I) was prepared according to the procedure of Kaufmann, et al. (C. A. 11, 963) in 28% yields (81 g.) from 500 g. cinchonine sulfate and was a colorless oil, b_{0.04} 81.5-4.0°, b₁₁ 137-8°, d₂₀ 0.9918, n_D 1.4675, mol. refraction 55.77 (calculated 56.05), [α]_{17D} 16.75°; HCl salt, m. 159-60°, [α]_{23D} -9.3 ± 1° (c 2.576 in alc.), saponified to free cincholoipon; HCl salt, m. 202-3°, [α]_{18D} -4.6 ± 1° (c 2.418 in H₂O). Reduction of 58 g. I in alc. with Na gave 34 g. (74.5%) of 3-ethyl-4-(2-hydroxyethyl)piperidine (II), b_{0.02} 103-8°, [α]_{17D} 13.1 ± 0.4° (c 6.550 in 95% alc.). Heating 55 g. II with fuming HBr at 110° in a sealed tube yielded 89% (93 g.) of 3-ethyl-4-(2-bromoethyl)piperidine-HBr (III),

m. 115-17°, $[\alpha]_{18D} -16.9 \pm 0.5^\circ$ (c 1.927 in 95% alc.). A mixture of 56.5 g. III in 450 cc. AcOH was stirred slowly with 140 g. Zn powder at 80-90° and after 4 h. was heated to boiling, yielding, on extraction, 23.5 g. (89%) of cis-3,4-diethylpiperidine, b₁₂ 70°, $[\alpha]_{22D} 26.0 \pm 0.6^\circ$ (c 4.350 in 95% alc.); picrate, m. 110.5-11.0°; N-Bz derivative (IV), b_{0.2} 136°. A mixture of 6.5 g. IV and 12 g. PBr₅ was distilled and the insol. oily distillate was taken up in ether. The residue on evaporation was saponified by boiling for 3.5 h. with 16 cc. of 48% HBr and steam-distilled. Extraction with ether produced 38% (2.7 g.) of 1,5-dibromo-3,4-diethylpentane (V), b₁₂ 127-34°, $[\alpha]_{19D} 11.8 \pm 0.3^\circ$ (c 7.382 in 95% alc.). Reduction of 5.7 g. V in 40 cc. MeOH containing 0.92 g. Na in the presence of Raney Ni from 8 g. alloy with 962 cc. H and repeated fractional distillation of the crude reduction product over K produced 310 mg. of 3-methyl-4-ethylhexane (VI), d₂₀ 0.7346, n_D 1.4135, mol. refraction 43.55 (calculated 43.76), $[\alpha]_{17D} -9.1 \pm 6^\circ$ (c 3.329 in CHCl₃), $[\alpha]_{18D} -11.70$ to $-12.05 \pm 0.05^\circ$. Since none of the reactions used in converting I to VI affect C atoms 3 and 4 it can be considered that VI is stereochem. definitely related to the cinchona alkaloids. VI has now only 1 asym. C atom, corresponding to C atom 3 of the cinchona alkaloids. Through VI the alkaloids are configuratively related to the "methines" HCR₁R₂R₃ and, as shown by Levene and Marker (C. A. 27, 3910), the 1-rotatory "methines" HCMeEtR, where R is an alkyl group with more than 2 C atoms in a straight chain, form a steric series which can be represented by a conventional projection formula. From a consideration of this steric projection it is possible to show that of the 8 possible projection formulas for the quinucleidine system only 4 (XVIII, XIX, XXIV and XXV) have that configuration at the C-3 atom required by the degradation to VI. The configuration at C atom 4 can be determined by demonstrating the cis or trans positions of the residual groups attached to C atoms 3 and 4. A mixture of 9 g. V and NaCH(CO₂Et)₂ from 5.52 g. CH₂(CO₂Et)₂, 1.59 g. Na and 36 cc. absolute alc. was heated in a closed tube for 4 h. at 120°, yielding 4.1 g. (46%) of di-Et ester, b_{0.1} 116-21°, saponified to 98% of (-)-cis-1,2-diethyl-4,4-cyclohexanedicarboxylic acid (VII), m. 163-4°, $[\alpha]_{16D} -11.2 \pm 1^\circ$ (c 1.903 in CHCl₃). Decarboxylation of 1.18 g. of crude VII at 180° and vacuum distillation gave 0.83 g. (87%) of colorless oily cis-1,2-diethyl-4-cyclohexanedicarboxylic acid, $[\alpha]_{16D} -2.13 \pm 0.05^\circ$ converted into 1.15 g. of the Ag salt (VIII). Bromination of 1.15 g. VIII in anhydrous CCl₄ under reflux with 50% Br in CCl₄ for 30 min. and fractional distillation

of

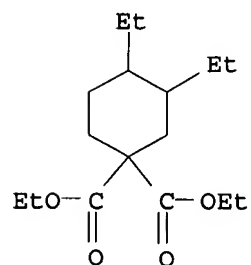
the crude bromide produced 460 mg. of 1-bromo-cis-3,4-diethylcyclohexane, $[\alpha]_{16D} -1.41 \pm 0.5^\circ$ (c 4.265 in 95% alc.), reduced in 5.5 cc. alc. containing 65 mg. Na in the presence of Raney Ni from 500 mg. alloy, and distilled to yield cis-1,2-diethylcyclohexane (IX), optically inactive. This somewhat roundabout conversion of V to IX was chosen to give mild, controllable reactions in which the asym. C atoms were unattacked and not racemized. Since the end product is optically inactive it is concluded that the residues in the C atom 3 and 4 positions of the cinchona alkaloids are in the cis position and only the formulations XXIV and XXV with the vinyl group at C atom 3 in the endo position are in agreement with these findings. It remains only to assign one of these formulations to the 1-rotatory cinchonidine and quinine and the other to the d-rotatory cinchonine and quinidine. Only d-rotatory alkaloids are convertible into ether ring compds. such as α- and β-isocinchonine and α-, β- and γ-isoquinidine. Thus, XXV with both residual groups in the endo position is assigned to cinchonine and quinidine and XXIV to cinchonidine and quinine. Similar configurations can also be assigned to the by-alkaloids such as dihydro alkaloids 9-epiquinine and 9-epiquinidine, etc., and to various synthetic rearrangement products whose stereochem. relationship to the main alkaloids is already established.

IT 854445-44-6P, 1,1-Cyclohexanedicarboxylic acid
 , 3,4-diethyl-, diethyl ester

RL: PREP (Preparation)
(preparation of)

RN 854445-44-6 CAPLUS

CN 1,1-Cyclohexanedicarboxylic acid, 3,4-diethyl-, diethyl ester (4CI) (CA
INDEX NAME)



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